Privacy Policies for Smart Metering in Victoria
Consultation response

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The ESC consultation on Privacy Polices for Smart Metering was issued in June 2012, while the responsibility for this area is scheduled to move to the Australian Energy Regulator on 1-7-12. It is important hat the parameters for setting up and approving appropriate privacy polices for smart metering be considered prior to this changeover, and the launch of Smart meter Portals is due on 15-6-12, the day that this Consultation closes.

This submission has been made possible by an extension for submission by the ESC.

Context

The discussions on Smart Meters in Victoria have been carried out with a heavy emphasis, both regulatory and politically, as a means of assisting solely **electricity** energy generators and distributors to 'manage demand' and enhance the security of electricity supply by extending their detailed information and control of end user appliances and premises.

Two factors have been glaringly absent from these discussions, which essentially ignored and excluded civil society.

1. Smart meters should and do apply to Water, gas and electricity: this has been loudly absent from the largely in-house energy supplier/government debate. Partly due to the myopic focus even then on energy - and not embodied energy, where water plays a major role, although massive investments have been made by government in water supply and management, the smart meter integration issue has been almost completely ignored,
2. While it is globally recognised that **nega**watts (energy not used) is the gold standard of energy management and use, the demand side as managed by user behaviour, and not solely by remote control shutoff fiat with a token contact variation to users to reflect a little of the cats saved by the energy suppliers

The user end of this policy process has been almost completely ignored, the civil society participation (which, as is increasingly the case, now includes high level policy, analysis and technical expertise in all the areas required, not only in energy policy) has been excluded.

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[1] **While Dr Wigan is currently both Vice Chair of Electronic Frontiers Australia, and a life member of the Australian Privacy Foundation, due to timing problems formal approval of the two Boards has not been possible within the approved extension for submission, so it has therefore been made in his personal capacity.**

An almost invisible call for consultation on the privacy aspects of (electricity) smart meters has been the predictable outcome, not even circulated to civil society stakeholders ('*but its on our website*" responds the Emergency Services Commission, as the Australian Tax Office might and does aver: we all do, of course, scour these massive sites daily and in detail as a matter of daily concern).

This comprises two components:

1. a sterling report by Lockstep consulting, restricted to the clearly myopic terms of reference, but solidly stated within those confines.
2. Comments by ESC and some of the energy distributors n this report.

Again the absence of any other parties yells loudly by its absence.

The Lockstep report may have been in response to the increasing aversion from the imposition and costs of smart electricity meters (imposed at the cost of consumers but – amazingly – with the retention of these meters as the property of the distributors, and not those who paid for them.

This reflects the evinced and complete obliviousness of the official parties involved to the end user concerns, with its one sided regulatory and ownership approach, and the disempowerment of the user and civil society community in this massive and mandated end user expense. This (Australia: Ministerial Council on Energy, 2010) is a sadly typical national embodiment of this perspective, even down to neglecting the water and gas integration aspects entirely, focussing on price signals without any consideration of the end user response interests, patterns, acceptability, responses or effectiveness, and assuming that all the information was by omission (and thus implication) the property of the distributors.

The paradigm of assumed, implied and all too evident Distributor Ownership of the entire process has clearly contributed to this outcome (Roozbehani et al., 2011 (submitted)), and also to the resistance now being seen from the end user communities [2], not only in Australia[3], for whom there is publicly seen to be little to gain other than another one

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[2] VICTORIANS will be forced to get smart meters or risk having their power cut off if they repeatedly resist: http://www.heraldsun.com.au/news/more-news/victorias-electricity-smart-meters-here-to-stay/story-fn7x8me2-1226222296707. Story dated 15-12-11

[3] The under informed, strongly felt, but generally confused nature of these US concerns (http://www.dailymotion.com/video/xk7y5l_smart-meters-the-spy-in-your-home_tech) illustrates the importance of better civil society engagement, briefing and participation in the global move to intelligent metering and control of water, gas and electricity, drawing as it does on a range of global movements and concerns . It leaves little doubt that privacy provisions are critical in all nations., and illustrates the dangers of inadequate user engagement by the conflation of the unconnected issues of climate change rejection, RF influences, none of which invalidate the issues rasied with the smart meter rollout and well substantiated privacy concerns KOEHLE, O. 2011. *Just say no to Big Brther's smart meters* [Online]. Rohnert Park CA: ARC Reproductions. Available: http://refusesmartmeters.com/smart%20meter%20dec%202011.pdf [Accessed 13 June 2012].

sided contribution to the distribution costs and control of the energy generators and distributors – and serious cost in greater vulnerability and privacy loss. The limited Civil Society engagement has been primarily on tariff issues and restricted to electricity metering (typically (Johnston, 2009)).

As stated in a letter to the Age on 14/4/10

> Letters - SMART METERS
> Age, The (Melbourne, Australia) - Wednesday, April 14, 2010
> CONFUSION reigns whenever smart meters (or even solar power feed-in tariffs) are mentioned (John Legge, Comment, 13/4/10).
>
> Almost all the publicity emphasises the power of the retailers and distributors to extract the available benefits as effectively monopoly suppliers. This is only possible because the government has not yet put in place regulations to enable the demand side of the equation to play its part.
>
> Once smart meters are in place, home information networks (part of the specification of every smart meter in Victoria) can be set to provide full information on power use in the household, minute by minute if need be.
>
> All that is needed is to enable households to have easy access to this information — and for them to scan all suppliers in real time and switch at once (easy with smart meter communications) to another supplier who is cheaper.
>
> This would have a strong downward pressure on rates, a levelling of charges at a far lower level, and a transparent market to keep it that way.
>
> When do we see the regulations to enable, and indeed to require, this? Or is "smart metering" solely to enable monopoly gains by retailers and distributors with the collusion of government and the power industry?
>
> Marcus Wigan , Eaglemont

However this cumulative disempowerment of civil society and end user communities has also led to a poorly articulated and scattergun approach to smart metering, and to the almost complete neglect of privacy and data ownership issues at multiple levels of government and regulation. Thereby avoiding having to engage in several key issues for the community at large:

1. Integrated smart meters for water, gas, electricity
2. Clear ownership and protection of this data for those who create it
3. Privacy issues as a result of the predictable growth of IPV6 addressability of all devices in a household
4. Inadequate engagement of the community in the proper anonymisation of these extremely sensitive detailed activity data flows back to distributors

5. Reciprocal regulatory rights for the end users

It is hardly surprising that movements such as Stop Smart meters are flourishing at the grass roots.

It is to the credit of the ESC that, in its last month of existence (before handing over to the Australian Energy regulator on 1/7/12), that it commissioned and requested consultation responses from the full community (Essential Services Commission, 2012), however inadequately advertised, based on a report well worthy of such an engagement (Lockstep Consulting, 2011).

Formal Response to Consultation as Framed and requested by the ESC

The assertions made in the ESC website on privacy[4] are inadequate and to a degree misleading, and need to be reviewed and enhanced. As Lockstep point out, the next round of concerns on privacy are about to arise with the extension of Third Party data access arrangements, and the takeup of HAN devices within the home or business. All this data needs to be Personal data, as advised by Lockstep

The Portal released by Jemena on 15-6-12 could not be accessed by the Author of this submission as a member of the ATA/Jemena Trial as the Privacy policy still on the website had to be agreed to, and required third party access to the data. It was also unclear that this agreement would apply from then onward with all exchanges with this distributor. Efforts to secure clarity as to how this policy would be changed to meet the much greater and more privacy and real time monitoring intrusive demands of smart metering were not responded to for almost the entire the prerelease trial period, and no variation was offered once communication was established.

The formal responses made by ESC and the distributors took a 'she'll be right' 'consider it later' approach ignoring these issues [5].

This is quite unacceptable, as this [Electricity] Smart Meter program is but the first of a family of massively privacy intrusive technologies, very attractive to all sorts of parties, marketing, government, enforcement, social services and criminal.

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[4] http://www.dpi.vic.gov.au/__data/assets/pdf_file/0006/138921/DPI-SM-FS_Privacy_02-01_WEB.pdf

[5] http://www.google.com.au/url?sa=t&rct=j&q=lockstep%20lumo%20energy%20momentul%20origin&source=web&cd=1&ved=0CGgQFjAA&url=http%3A%2F%2Fwww.esc.vic.gov.au%2Fgetattachment%2Fdb37a099-0281-45bb-b8f3-cd2568d34aaa%2FSummary-of-Energy-Retailer-s-responses-Smart-Meter.pdf&ei=gEPdT63GBOiciAeIxP2uCg&usg=AFQjCNEGxEUinOCs739FxfHk3W1hpysDXA

Not only does this need to be addressed promptly but mechanisms be put in place to avoid similar problematic situations arising at the next stages.
These issues are neither new nor peculiar to Australia or Victoria, and, as just one four year old example, the EU Directive 2006/32/EC 17-6-12 was responded to in the Netherlands in similar terms, pointing out conflicts with the European Community Human Rights declaration, also pointing out that *"in depth research is necessary into less intrusive alternatives.. that respect right to privacy and guarantee security.. from the parliamentary history is becomes clear that this kind of research is currently lacking*"(Cuijpers, 2009) [Extracted from the full report in Dutch (Cuijpers and Koops, 2008)).

The unambiguous conclusion of the most recent Communication of the Commission to the European parliament in this area was that smart meter data **must** be '*personal information*', and treated carefully as such {see key extract below) (European Commission, 2011). This submission pivots on this key point, and establishing the legal, practical, consutative and regulatory mechanisms to achieve are the key issues raised for action by the ECS in response to this submission

Discussion

1. The consideration of privacy issues, and indeed Smart Metering, solely in an electricity context is alarming for the community as a whole. After the recent massive investments in water, no attention has been paid publicly to the contribution of smart **water** meters – or indeed to smart gas meters - , yet demand responses to such information are well documented in the plummeting usage of water over the period of the drought using only minimal and long cycle (bill to bill) feedback mechanisms, and under the constraint of infrastructure payments distorting to immediate perception of the bill totals.

3. Smart (electricity) Meters are simply the first step in the rapid expansion of the Internet of Things, where every device and power point and outlet will have its own IPV6 address. The recent and imminent wholesale shift to IPV6 will trigger this, and the equipment is already available and on wide sale in other countries than Australia. The precise modes of implementation of IPV6 addressing itself raise unaddressed privacy and surveillance implications.

3. All of the Zigbee[6] and IPV6 addressable devices in the home will be paid for and owned by the householder or landlord, not by the electricity, water of gas suppliers or distributors. There is a clear policy vacuum here, which has major data ownership, use and property issues to be resolved for successful takeup to the benefit of all.

[6] Standard 801.15.xx

4. The neglect of a stakeholder groups including civil society and end user participants has led to the current unfortunate situation where electricity has been treated in isolation, community negative reactions have been engendered making the successful deployment that we all need politically problematical: all quite uneccessarily

5. It is clear, from the widespread negative end user reactions, and enforced political responses, that a fresh strategy for addressing Smart Metering (on the full spectrum) is urgently needed

6. The complete lack of any serious smart meter end user response modelling and analyses[7] is a major policy, practical, tariff and community vacuum that can and should be filled. The present author has been forced to draft one as a direct result of being asked to make this submission, as it has made the need so clear and was required to be able to formulate a constructive response to this ESC consultation request.

Recommendations

1. Smart Electricity Meter data be designated Personal information and Owned by the household generating it

2. Due the weakness in the enforcement mechanisms displayed over many years in support of the Federal Privacy Act[8], that the ESC and AER require Distributors to comply with the Act but that the enforcement become a formal federal duty and responsibility of the AER from its inception as the appropriate body on 1/7/12, and be transferred from the Privacy sub branch of Office of the Information Commissioner (which has recently seen a further reduction in its resources, with the expansion of its formal roles)

3. That transparently auditable processes be put in place to allow only aggregated (and non household identifiable record) to be garnered by the Distributors (this

[7] This is not quite the place to detail the agent based modelling of household activities, the interactions of social networks, and the demand response and behaviour shifts, and distributional equity of the response and expenditure patterns. However all the elements of this battery of economic, behavioural and forecasting tools are available and operating (although not in this combination) in the authors major field of transport. Consequently such work could be initiated promptly and without delay to take advantage of recent launches of various forms of even the simple web based (as distinct from HAN device based) first generation user information tools launched on 15-6-12 by Jemena and Origin energy (http://www.dpi.vic.gov.au/smart-meters/home/latest-news/smart-meter-web-portals-launch).

[8] Only a single Determination on privacy can be traced as having been issued for the last few years by the Commissioner, Timothy Pilgrim

will address much of the Third Party data access problems that were forseen to arise with the near future HAN implementations shortly.

4. That an expanded Stakeholder forum be created to address these and the wider Smart meter (water, gas, and internet of things) issues, charged with community communication as well as policy advice. This might best be done by appointing a short term Commissioner with some limited consulting support for consultation, to report on the best mechanisms and methods to do so, paying special attention to the governance aspects as well privacy and data ownership, access and usage rights

Key EC Extract (European Commission, 2011)

8. The Commission will also follow the development of ICT standards at the European and international level to facilitate the implementation of Smart Grids.
2.2. Addressing data privacy and security issues
Developing legal and regulatory regimes that respect consumer privacy in cooperation with the data protection authorities, in particular with the European Data Protection Supervisor, and facilitating consumer access to and control over their energy data processed by third parties is essential for the broad acceptance of Smart Grids by consumers.[27] Any data exchange must also protect the sensitive business data of grid operators and other players, and enable companies to share Smart Grids data in a secure way.
Directive 95/46/EC on the protection of personal data[28] constitutes the core legislation governing the processing of personal data. The Directive is technology- neutral and the data processing principles apply to the processing of personal data in any sector, so also cover some Smart Grids aspects. The definition of personal data[29] is particularly relevant, as the distinction between personal and non-personal data is of outmost importance for further Smart Grids deployment. If the data processed are technical and do not relate to an identified or identifiable natural person, then Distributed System Operators (DSOs), smart meter operators and energy service companies could process such data without needing to seek prior consent from grid users. While the European data framework is http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52011DC0202:EN:HTML:NOT appropriate and does not need to be extended, some adaptations might be needed in the specific national legal frameworks in order to accommodate some Smart Grids foreseen functionalities. With the wide deployment of Smart Grids, the obligation to notify national data protection authorities of the processing of personal data is naturally likely to increase. Member States will have to ensure, when setting up Smart Grids and more particularly when deciding on the division of roles and responsibilities regarding ownership, possession and access to data, that this is done in full compliance with the EU and national data protection legislation. [30]
The Smart Grids Task Force has agreed that a 'privacy by design' approach[31] is needed. This will be integrated in the standards being developed by the ESOs.

The references in this extract are-

[27] http://www.beuc.org/Content/default.asp?pageId=1120&searchString=smart%20grids.[28] Directive 95/46/EC of 24 October 1995 of the European Parliament and of the Council on the protection of individuals with regard to the processing of personal data and on the free movement of such data, OJ L 281, 23.11.1995, p. 31.

[29] Article 2(a) of Directive 95/46/EC.[30] The Article 29 Working Party on the protection of individuals with regard to the processing of personal data (set up under Article 29 of Directive 95/46/EC to advise the Commission) is currently working on an opinion to highlight the relevant data protection issues for smart grids and make recommendations for solutions.

[31] Privacy by Design is an approach whereby privacy and data protection compliance is designed into systems holding information right from the start, rather than being bolted on afterwards or ignored, as has too often been the case. See http://www.ipc.on.ca/images/Resources/7foundationalprinciples.pdf.

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